

WHAT IS CLAIMED IS:

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a1 → 1. A data management system for storages, suitable for a system having a host and a plurality of storages connected to a data transfer network, comprising:

5 a converter facility for converting a block (unity) of semantically significant data specific to an operating system (OS) on said host into a unity of semantically significant data common to said data transfer network; and

10 a management facility for managing a readout of said unity of data from one of said storages upon reception of the unit name of said data from said host, said facility being provided apart from said host.

2. A data management system according to claim 1, wherein:

15 said unity of semantically significant data specific to said operating system is comprised of actual data section and a first control section for defining the type of data specific to said operating system,

20 said converter facility considers the entire unity as said actual data to add to said unity of data specific to said operating system a second control section created for managing the type of data and for being common to said data transfer network.

3. A data management system according to claim 2, wherein:

said data transfer network is a storage area network.

25 4. A data management system for storages suitable for a system having a host and a plurality of storages connected

to a data transfer network, comprising:

a converter facility for converting files in a first format having a file format specific to an operating system on said host into files in a second format having a file format common to said data transfer network; and

a management facility for managing a readout of files in said second format from one of said storages upon reception of file operation request to said storages from said host, said facility being provided apart from said host.

10 5. A data management system according to claim 4, wherein:

said files in said first format is comprised of actual data section and a first control section for defining the type of data specific to said operating system,

15 said converter facility considers said entire files in said first format as said actual data to add to said files in said first format a second control section created for managing the type of data and for being common to said data transfer network.

20 6. A data management system for storages suitable for a system having a plurality of storages and hosts connected to a data transfer network, comprising:

a host for obtaining files from said storages;

a server for managing files present apart from said host;

and

25 a converter facility for converting files of a format specific to an operating system on said host into a generic format

file having a format of significance common to said data transfer network;

wherein said server manages the transmission of said files on said storages to said host upon reception of access permission request from said host to said files under the name of said common format file.

7. A data management system for storages according to claim 6, further comprising:

a storage for storing said common format files,

10 wherein:

said server issues to said storage a staging request with a file operation ID added with respect to a file requested for said access permission, and send said file operation ID on condition that any error occurs;

15 said storage stages said file in accordance with said staging request and add said file operation ID to said file; and

said host obtains said file by issuing a file operation request to said storage with said file operation ID added.

20 8. A data management system for storages, according to claim 7, wherein:

said file operation ID is for use in the acknowledgment of access right of said host.

25 9. A data management system for storages, suitable for a system having a plurality of storages and hosts connected to

a data transfer network, comprising:

a host having a file system converting files in a file format specific to an operating system into files in a file format common on said data transfer network, and converting files in
5 said common file format on said data transfer network into files in said file format specific to said operating system, and said host updating data in said file format specific to said operating system;

10 a storage having a file storage area for storing files in a format common to said data transfer network, a virtual space for retaining files that may be transmitted and received to and from said host or another storage and that is in said format common to said data transfer network, as well as a storage controller for asynchronously allocating said file read out from
15 said storage area to said virtual space to transmit to said host said file in said virtual space.

10. A data management system for storages according to claim 8, wherein:

20 said data transfer network comprises a plurality of fibre switches having hosts and/or storage devices connected thereto and a storage area network for connecting these components.

11. A data management system for storages according to claim 9, wherein:

25 said file in said file format specific to said operating system is comprised of actual data and a file control section

for defining the file type thereof;

5 said file system considers said actual data plus said file
control section as an actual data entirely to create another
file control section common to said storage area network, said
file in said file format specific to said operating system being
converted to a file in said file format common to said storage
area network by adding said another control section to said file
in said file format specific to said operating system.